(No Model.)

C. W. KIMBALL.

METHOD OF MAKING HOSE STRAPS.

No. 421,004. Patented Feb. 11, 1890.

Fig. 1.

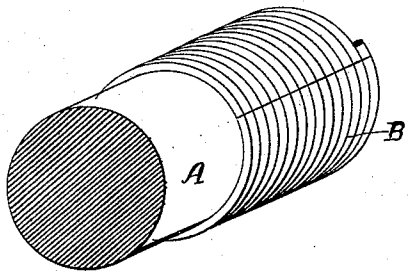


Fig. 2.

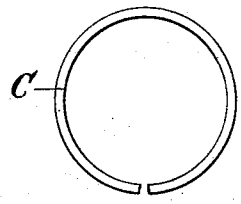


Fig. 3.

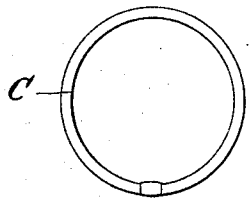


Fig. 4.

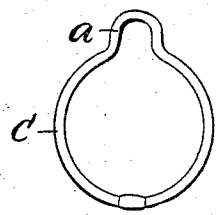
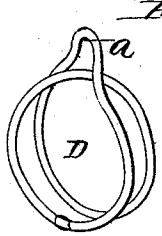


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLES W. KIMBALL, OF CHICAGO, ILLINOIS.

METHOD OF MAKING HOSE-STRAPS.

SPECIFICATION forming part of Letters Patent No. 421,004, dated February 11, 1890.

Application filed March 19, 1889. Serial No. 303,881. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. KIMBALL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hose-Straps and Method of Making the Same, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

The object of this invention is to provide an improved hose-strap for securing hose-sections to their couplings, as will be hereinafter set forth.

Figure 1 is a view in perspective of a mandrel on which the wire or stock is coiled in the first step of making the hose-strap. Fig. 2 shows the strap or ring as it comes from the mandrel, being open at one side: Fig. 3 is a view of the same, showing the ends brazed together and forming a solid ring; Fig. 4, a view of the same with the addition of the loop formed on one side, and Fig. 5 shows a double strap or ring formed in the same manner.

Referring to the drawings, A represents a mandrel-shaft, and B the wire stock coiled thereon.

In carrying out my improved method the first step consists in coiling the wire on a mandrel of the required diameter, next in cutting the wire up to form the strap or open ring C shown in Fig. 2, next in brazing the ends together, and, finally, in inserting the strap or ring in suitable dies and forming the elongated loop *a* thereon, as shown in Fig. 4. This strap or ring is applied to the hose in securing the same to the coupling by inserting in the loop part a suitable tool in the form of a pair of pliers, which is the subject-matter of another application, and twisting the loop so as to draw the strap into a clamping position.

The strap D (illustrated in Fig. 5) is in the form of a double ring, the wire being crossed, so as to insure a uniform binding-strain on both coils alike in the process of twisting the loop.

The method of making the double strap is the same as that followed in the construction of the single ring, the amount of wire cut from the mandrel each time being of course doubled.

The double strap covers a larger surface than the single coil, and is more especially intended for the larger hose and heavier pressure.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The method herein described of making hose-straps, which consists in first coiling the wire stock on a mandrel of the required diameter, next cutting up the wire to form open rings, then brazing the ends of the rings together, and finally inserting the rings in suitable dies and forming an elongated loop thereon, as set forth.

CHARLES W. KIMBALL.

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L. B. COUPLAND.